**PATENT** 

# Application # PCT/US04/10339

Attorney Docket # 1047-014

#### IN THE INTERNATIONAL BUREAU OF WIPO

Applicant

AGROSHIELD, LLC

International Application No.:

PCT/US04/10339

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2 April 2004

**Priority Date** 

2 April 2004

For

Compositions and Methods for Protecting Materials

from Damage

BY FACSIMLE 011-41-22-740-1435

International Bureau of WIPO

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## **STATEMENT UNDER ARTICLE 19(1)**

In accord with PCT Article 19, Applicant respectfully submits the following amendments and statement in response to the International Search Report and Written Opinion mailed on 7 July 2005.

Applicant respectfully submits the attached substitute claims to replace the originally filed claims in their entirety.

#### Statement

The Examiner is respectfully thanked for the thoughtful consideration provided to this application. Reconsideration of this application is respectfully requested in light of the following statements.

Please note that Applicant is headquartered in New Orleans, Louisiana, and has its primary research facility in southern Mississippi. Due to the severe disruptions caused recently by Hurricane Katrina, Applicant regrets that it is unable to respond as fully as it

might have preferred to the Written Opinion, and welcomes the opportunity to engage in further dialog with the Examiner.

Claims 1-34 are now pending in this application. Each of claims 1, 18, and 23 are in independent form.

Claims 2-13, 15-17, 19-22, and 24-34 are unchanged.

Each of claims 1, 14, 18, and 23 has been amended for reasons unrelated to patentability, including at least one of: to explicitly present one or more elements implicit in the claim as originally written when viewed in light of the specification, thereby not narrowing the scope of the claim; to detect infringement more easily; to enlarge the scope of infringement; to cover different kinds of infringement (direct, indirect, contributory, induced, and/or importation, etc.); to expedite the issuance of a claim of particular current licensing interest; to target the claim to a party currently interested in licensing certain embodiments; to enlarge the royalty base of the claim; to cover a particular product or person in the marketplace; and/or to target the claim to a particular industry.

Each of claims 1, 18, and 23 has been amended to recite that "the composition releases heat when an ambient temperature is about 5°C to about -15°C". Claim 14 has been amended to recite that "the composition releases heat when an ambient temperature is about 3°C to about -14°C".

### Novelty

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The Written Opinion contends that each of claims 1, 3-20, and 22-34 fails to meet the criteria under PCT Article 33(2) due to alleged anticipation by Devonport (U.S. Publication No. 2003/0232914 A1). These contentions are respectfully traversed.

The Written Opinion contends that each of claims 1, 3-13, 18-20, 22, 23, and 28 fails to meet the criteria under PCT Article 33(2) due to alleged anticipation by Fujimoto (U.S. Publication No. 2003/0054170 A1). These contentions are respectfully traversed.

Applicant respectfully submits that each of independent claims 1, 18, and 23 recites, yet neither Devonport nor Fujimoto appear to teach or suggest, explicitly or inherently, that "the composition releases heat when an ambient temperature is about 5°C to about -15°C".

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## Conclusion

It is respectfully submitted that, in view of the foregoing amendments and statements, the application is in clear condition for a favorable International Preliminary Examination Report.

Reconsideration, withdrawal of all grounds of contention, and issuance of a favorable International Preliminary Examination Report are earnestly solicited.

The Examiner is invited to contact the undersigned at 434-972-9567 to discuss any matter regarding this application.

Respectfully submitted,

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#### What is claimed is:

- 1. A composition prepared from a plurality of materials comprising a Class 1 member, a Class 2 member, and a Class 3 member, said Class 1 member contributing approximately 0.1 percent to approximately 10 percent by dry weight of said composition, said Class 2 member contributing approximately 1 percent to approximately 10 percent by dry weight of said composition, and said Class 3 member contributing an amount up to a balance by dry weight of said composition, wherein the composition releases heat when an ambient temperature is about 5°C to about -15°C.
- 2. The composition of claim 1, wherein the composition is biodegradable.
- 3. The composition of claim 1, wherein the composition comprises particles.
- 4. The composition of claim 1, wherein the composition comprises solid particles.
- 5. The composition of claim 1, wherein the composition comprises nanoparticles.
- 6. The composition of claim 1, wherein the composition comprises particles having a molecular weight of from about 20,000 to about 50,000,000.
- 7. The composition of claim 1, wherein the composition comprises particles having an average diameter of from about 2 nanometers to about 1000 nanometers.
- 8. The composition of claim 1, wherein the composition comprises particles having an average diameter of from about 200 nanometers to about 500 nanometers.
- 9. The composition of claim 1, wherein the composition comprises particles having an average diameter of from about 100 nanometers to about 200 nanometers.
- 10. The composition of claim 1, wherein the composition comprises particles having an average diameter of from about 2 nanometers to about 200 nanometers.

- 11. The composition of claim 1, wherein the composition comprises particles having an average diameter of less than about 1000 nanometers.
- 12. The composition of claim 1, wherein the composition comprises particles having an average diameter of less than about 500 nanometers.
- 13. The composition of claim 1, wherein the composition comprises particles having an average diameter of less than about 200 nanometers.
- 14. The composition of claim 1, wherein the composition releases heat when an ambient temperature is about 3°C to about -14°C.
- 15. The composition of claim 1, wherein the composition releases heat when an ambient temperature is about 1°C to about -15°C.
- 16. The composition of claim 1, wherein the composition releases heat when an ambient temperature is less than about -5°C.
- 17. The composition of claim 1, wherein the composition releases heat when an ambient temperature is less than about -10°C.
- 18. A mixture comprising a polymer composition prepared from a plurality of materials comprising a Class 1 member, a Class 2 member, and a Class 3 member, said Class 1 member contributing approximately 0.1 percent to approximately 10 percent by dry weight of said polymer composition, said Class 2 member contributing approximately 1 percent to approximately 10 percent by dry weight of said polymer composition, and said Class 3 member contributing up to a balance by dry weight of said polymer composition, wherein the composition releases heat when an ambient temperature is about 5°C to about -15°C.
- 19. The mixture of claim 18, further comprising water.

- 20. The mixture of claim 18, further comprising water, said water contributing approximately 90 percent to approximately 99.5 percent of a total weight of said mixture.
- 21. The mixture of claim 18, further comprising a soybean protein composition.
- 22. The mixture of claim 18, further comprising one or more components selected from a group comprising micronutrients, macronutrients, pesticides, insecticides, herbicides, rodenticides, fungicides, biocides, plant growth regulators, fertilizers, microbes, soil additives, adhesion promoting-agents, surfactants, and freezing point modifiers.
- 23. A method comprising a plurality of activities comprising:

providing a mixture comprising water and a composition prepared from a Class 1 member, a Class 2 member, and a Class 3 member, said Class 1 member contributing approximately 0.1 percent to approximately 10 percent by dry weight of said composition, said Class 2 member contributing approximately 1 percent to approximately 10 percent by dry weight of said composition, and said Class 3 member contributing an amount up to a balance by dry weight of said composition, wherein the composition releases heat when an ambient temperature is about 5°C to about -15°C; and

coating at least a portion of a surface of an object with the mixture.

- 24. The method of claim 23, wherein the object is a plant material.
- 25. The method of claim 23, wherein the object is a human.
- 26. The method of claim 23, wherein the surface is human skin.
- 27. The method of claim 23, wherein the object is an animal.
- 28. The method of claim 23, further comprising spraying the mixture toward the surface.

- 29. The method of claim 23, further comprising preventing formation of ice on the surface.
- 30. The method of claim 23, further comprising preventing dehydration from the object.
- 31. The method of claim 23, further comprising reducing dehydration from the object.
- 32. The method of claim 23, further comprising reducing heat transfer via the surface.
- 33. The method of claim 23, further comprising reducing mass transfer via the surface.
- 34. The method of claim 23, further comprising reducing kinetic energy transfer to the object.